




October 20, 1995

MEMORANDUM

TO: Brian R. Monson, Chief
Operating Permits Bureau
Permits and Enforcement

FROM: Wade Wheeler, Air Quality Engineer 
Construction Permits Bureau
Robert Baldwin, Air Quality Engineer 
Operating Permits Bureau

THROUGH: Susan J. Richards, Air Quality Permit Manager 
Operating Permits Bureau

SUBJECT: Technical Analysis for proposed Tier II Operating Permit #011-00013 Idaho
Supreme Potatoes, Incorporated, Firth, Idaho.

PURPOSE

The purpose for this memorandum is to satisfy the requirements of IDAPA 16.01.01 Sections 400 through 406 (Rules for the Control of Air Pollution in Idaho) for issuing Operating Permits (OP).

FACILITY DESCRIPTION

Idaho Supreme Potatoes, Inc., located in Firth, Idaho, processes raw potatoes to produce dry flake and dry slices for consumer and commercial consumption. The potato by-product is used in the production of dog food, mash, and land application. The facility consist of a processing area, six (6) storage silos, and four (4) raw potato storage cellars.

PROJECT DESCRIPTION

This project is for an Operating Permit for the following existing point and fugitive emission sources.

Point Sources:

- (1) Boiler - Gas-fired with a maximum rated capacity of 90,000 lb steam/hr. The boiler was modified in 1994. This boiler has a Permit to Construct (PTC) #011-00013.

Boiler Specifications:

Manufacturer:	Bigelow
Model:	200 Series FYR
Max. Production:	90,000 lb steam/hr
Fuel:	Natural Gas

Auxiliary fuel is diesel.

- (2) Boiler - Gas-fired with a maximum rated capacity of 43.03 MMBTU/hr. The boiler was constructed in 1978.

Manufacturer:	Cleaver Brooks
Model:	WT200X-BRS
Max. Heat Input:	43.03 MMBTU/hr
Fuel:	Natural Gas

- (3) Boiler - Gas-fired with a maximum rated capacity of 57.02 MMBTU/hr. The boiler was constructed in 1971.

Manufacturer:	Zurn Industries
Model:	11M-KEYSTONE
Max. Heat Input:	57.02 MMBTU/hr
Fuel:	Natural Gas

Process Equipment

- (4) Dryer Stage A, Gas-fired with a maximum rated capacity of 8.0 MMBTU/hr. The dryer was constructed in 1993.

Manufacturer: National
Model: Maxon NP-1

- (5) Dryer Stage B, Gas-fired with a maximum rated capacity of 3.2 MMBTU/hr. The dryer was constructed in 1993.

Manufacturer: National
Model: Maxon NP-1

- (6) Dryer Stage C, Gas-fired with a maximum rated capacity of 3.2 ^{MMBTU} tons/hr. The dryer was constructed in 1993.

Manufacturer: National
Model: Maxon NP-1

- (7) Secondary Dryer, Gas-fired with a maximum capacity of .55 MMBTU/hr. The dryer was constructed in 1993.

Manufacturer: Maxon
Model: 40S Ovenpak

Fugitive Sources:

- (1) Paved roads.
(2) Space Heaters.

Space Heater Specifications:

Unit ID	Make/Model	Rating
South System	Maxon NP-1	8.25 MMBTU/hr
North System	Maxon NP-1	8.25 MMBTU/hr
East System	Maxon NP-1	15.4 MMBTU/hr
Aggregate	Various	2.06 MMBTU/hr

A more detailed process description is found in the operating permit application materials.

SUMMARY OF EVENTS

On July 10, 1995, the Division of Environmental Quality (DEQ) received an application for a Tier II Operating Permit. On August 8, 1995, the Tier II operating permit application for Idaho Supreme Potato was determined to be complete.

A public comment period is scheduled from October 27, 1995, to November 27, 1995.

DISCUSSION

1. Emission Estimates

Emission estimates were provided by Idaho Supreme Potatoes and can be seen in the July 10, 1995, application and in the September 22, 1995, PTC #011-00013. DEQ also estimated the PM, SO₂, NO_x, CO, and the VOC emissions by using emission factors from AP-42, Section 1.4 (natural gas combustion).

The maximum PM emission rate for the facility was based on 1,030 MMcf of natural gas used and the requested fifty (50) ton per year process emission limit requested in the application.

NO_x is the pollutant emitted in the greatest amount from the fuel burning equipment. The maximum emissions rate for that pollutant was estimated, using 8,760 hours for the non permitted equipment, to exceed 100 tons per year for the facility. The applicant chose to net out of Tier I permitting by limiting the potential to emit of NO_x emissions to less than 100 ton/year. The applicant choose to reduce the hours of operation of the two (2) standby boilers, the Cleaver Brooks and the Zurn Industries, to fifty (50) hours each per year. The applicant accepted an enforceable limit on NO_x emissions of 51.88 tons per year. The Bigelow boiler is limited to a maximum of 638,266,000 lb per year of steam production. To limit the facility to this amount of NO_x emissions, maximum natural gas usage for the entire facility must be limited to less than 1,030 million cubic feet per year.

Compliance for the gas usage will be demonstrated by reporting the annual gas usage to DEQ on a rolling annual basis.

Fugitive particulate emissions from the paved roads were calculated by the applicant by using emission factors from AP-42, Section 11.2.3.3.

Fugitive NO_x emissions from the space heaters were estimated by using emission factors found in AP-42, Section 1.4-1. Based on applicant's submittal, it was assumed that burners operate 6048 hours per year.

Fugitive emission calculations can be determined from the application materials.

The emissions for the potato dehydration process were determined from confidential information in the form of a month long material balance. The material balance was based on comparing the dry matter of solids input to dry matter of solids output with the difference assumed to be emitted into the air. The assumed air emission was then prorated to the requested 500,000,000 pound per year raw product input to determine if the potential to emit would exceed 100 tons per year. It was found that neither the prorated value nor the requested process emission of fifty (50) tons per year resulted in an emission rate that needed further limitation. Therefore, the fifty (50) tons per year particulate matter was assigned to the entire potato dehydration process.

2. Modeling

No modeling was performed.

3. Area Classification

The Idaho Supreme Potatoes facility is located at Firth, Bingham County, Idaho. This area is located in AQCR 61. The area is classified as attainment or unclassifiable for all federal state criteria air pollutants (i.e., PM, PM-10, CO, NO_x, and SO₂).

4. Facility Classification

The facility is not a designated facility as defined in IDAPA 16.01.01.25. The facility is classified as an A2 source because the actual emissions of NO_x is less than 100 tons per year.

5. Regulatory Review

This operating permit is subject to the following permitting requirements:

- | | | |
|----|---------------------------------|--|
| a. | <u>IDAPA 16.01.01.401</u> | Tier II Operating Permit |
| b. | <u>IDAPA 16.01.01.403</u> | Permit Requirements for Tier II Sources |
| c. | <u>IDAPA 16.01.01.404.01(c)</u> | Opportunity for Public Comment |
| d. | <u>IDAPA 16.01.01.404.04</u> | Authority to Revise, Operating Permits |
| e. | <u>IDAPA 16.01.01.406</u> | Obligation to Comply |
| f. | <u>IDAPA 16.01.01.470</u> | Permit Application Fees for Tier II Permits |
| g. | <u>IDAPA 16.01.01.625</u> | Visible Emission Limitation |
| h. | <u>IDAPA 16.01.01.630</u> | General Rules for the Control of Fugitive Dust |

Idaho Supreme Tech MEMO
October 20, 1995
Page 4

FEES

Fees apply to this facility in accordance with IDAPA 16.01.01.470. The facility is subject to permit application fees for Tier II permits of five hundred dollars (\$500.00). IDAPA 16.01.01.470 became effective on March 7, 1995.

RECOMMENDATIONS

Based on the review of the Operating Permit application and on applicable state and federal regulations concerning the permitting of air pollution sources, we recommend that Idaho Supreme Potatoes, Inc., in Firth be issued a Tier II Operating Permit for the sources that exist at the facility. An opportunity for public comment shall be provided as required by IDAPA 16.01.01.404.01. We also recommend that the facility be notified of the Tier II permit fee requirement in writing. This fee will be applicable upon issuance of the permit.

SRM\SRM\SRM\jrf\...ipermits\permits\idsuprem.doc

cc: G. Spinner, SEIRO
Source File
COF

January 16, 1996

MEMORANDUM

TO: Orville Green, Assistant Administrator
Permits and Enforcement

FROM: Brian R. Monson, Chief *Brm*
Operating Permits Bureau

SUBJECT: Issuance of Tier II Operating Permit #011-00013 for
Idaho Supreme Potatoes, Incorporated (Firth)

PURPOSE

The purpose of this memorandum is to satisfy the requirements of IDAPA 16.01.01 Sections 400 through 406 (Rules for the Control of Air Pollution in Idaho) for issuing Operating Permits.

PROJECT DESCRIPTION

This project is for an Operating Permit for the Idaho Supreme Potatoes facility located at Firth, Idaho. Emission point sources existing at the facility are as follows: three (3) boilers, four (4) dryers, four (4) process baghouses, and six (6) storage silo baghouses. Fugitive emission sources found at the facility are space heaters, fuel storage tanks, and paved roads.

SUMMARY OF EVENTS

On July 10, 1995, the Division of Environmental Quality (DEQ) received an application for a Tier II Operating Permit. On August 14, 1995, the submitted Tier II operating permit application for Idaho Supreme Potatoes was determined complete. On October 27, 1995, a proposed Tier II operating permit was issued for public comment. No comments were received.

RECOMMENDATIONS

Based on the review of the Operating Permit application, and on applicable state and federal regulations concerning the issuance of an Operating Permit, the Bureau staff recommends that Idaho Supreme Potatoes, Inc., in Firth be issued a Tier II Operating Permit. Staff also recommends that the facility be notified in writing of the obligation to pay permit application fees for the Tier II permit.

ODG\BRM\REB:727...\permits\idsuprf\idsuprf.INM

cc: G. Spinner, SEIRO
Source File
OP File Manual
COF

January 16, 1996

MEMORANDUM

TO: Dave Sande, Accountant Supervisor
Support Services

FROM: Robert Baldwin, Air Quality Engineer
Operating Permits Bureau *[Signature]*
Wade Wheeler, Air Quality Engineer *[Signature]*
Construction Permits Bureau

SUBJECT: Permit Application Fees for Tier II Permit

The following facility has been reviewed for compliance with IDAPA 16.01.01.470 "Permit Application Fees for Tier II Permits":

Idaho Supreme Potatoes, Incorporated (Firth)

Idaho Supreme Potatoes, Inc., in Firth, Idaho, applied for a Tier II Operating Permit for the sources that exist at the facility. DEQ has released the facility's final Tier II Operating Permit. According to IDAPA 16.01.01.470, the facility is subject to permit application fees for Tier II Permits of:

Five Hundred Dollars and No Cents (\$500.00)

The contact and mailing address for the above facility is:

COMPANY CONTACT: Keith Keller
COMPANY ADDRESS: Idaho Supreme Potatoes, Incorporated
P.O. Box 246
Firth, Idaho 83236

REB:jxj...\permit\idsupr\idsuprf.FEE

cc: G. Spinner, SEIRO
S. Richards, DEQ
Source File
COF